DEPARTMENT OF TRANSPORTATION

DES-OE MS #43 1727 30TH Street, 2ND Floor Sacramento, CA 95816



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May 4, 2004

04-SF-80-13.2/13.9 04-0120F4 ACBRIM-080-1(095)N

Addendum No. 23

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in SAN FRANCISCO COUNTY IN SAN FRANCISCO FROM 0.6 KM TO 1.3 KM EAST OF THE YERBA BUENA TUNNEL EAST PORTAL.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on May 26, 2004.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions, and the Proposal and Contract.

Project Plan Sheets 13C, 32, 33, 53, 75D, 547, 548, 549, 550, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 574, 577, 578, 716, 743, 760, 823, 853, 854, 889, 891, and 912 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 566A and 566B are added. Half-sized copies of the added sheets are attached for addition to the project plans.

In the Special Provisions, Section 2-1.04, "ESCROW OF BID DOCUMENTATION," the eleventh paragraph is revised as follows:

"The first, second, and third apparent low bidders shall present the bid documentation for escrow at the District 4 Office, 111 Grand Avenue, Oakland, CA, (510) 286-5209, on the first Wednesday between 1:00 p.m. and 2:00 p.m., following the time indicated in the "Notice to Contractors" for the opening of bids. The fourth and subsequent apparent low bidders shall present the bid documentation for escrow if requested by the Department to do so."

In the Special Provisions, Section 2-1.06, "BIDDERS COMPENSATION," the fourth paragraph is revised as follows:

"The Contractor shall be compensated for paying bidder compensation to the second and third low bidders in conformance with the provisions of Section 9-1.03B, "Work Performed by Special Forces or Other Special Services," of the Standard Specifications, except that 1 percent, in lieu of 15 percent, will be added to the invoice price. No additional mark ups will be allowed."

In the Special Provisions, Section 5-1.16, "INTEGRATED SHOP DRAWINGS," is revised as attached.

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In the Special Provisions, Section 5-1.27, "PAYMENTS," Item C of the fifth paragraph is revised as follows:

"C. Accelerated Working Drawings Submittal

\$25,000,000"

In the Special Provisions, Section 5-1.31, "ENVIRONMENTALLY SENSITIVE AREAS (GENERAL)," the following subsection is added after subsection "RESOURCE REGULATIONS AND MANDATES:"

"PROTECTION OF BUILDING No. 262

Attention is directed to Section 7-1.12, "Preservation of Property," and Section 7-1.12, "Responsibility for Damage," of the Standard Specifications, and the provisions in "Photo Survey of Existing Facilities," and "Vibration Monitoring," of these special provisions, regarding Building No. 262, a historical building that is included in ESA 2.

The Contractor shall take measures to protect the building from damage caused by the Contractor's operations. The Contractor shall submit a building protection plan for the Engineer's review at least 30 days prior to the start of adjacent or overhead construction. The Contractor shall also notify the Engineer at least 48 hours prior to the start of adjacent or overhead construction.

The Contractor shall bear full liability for any damage to Building No. 262 caused by the Contractor's operations.

Should any damage to Building No. 262 occur, the Contractor shall notify the Engineer within 24 hours. The Engineer may order the suspension of construction operations until the Contractor takes all necessary measures to prevent further damage to the building, and until an approved repair is completed. The Contractor shall submit a repair plan to the Engineer for approval prior to the start of such work. The Engineer will review the plan within 90 days. All repairs must follow the Secretary of the Interior's Standards for the Treatment of Historic Properties (http://www2.cr.nps.gov/tps/standguide/index.htm), and must be undertaken by a licensed preservation architect who meets the Secretary of the Interior's Professional Qualifications Standards for Historic Architecture (http://www.cr.nps.gov/local-law/arch_stnds_9.htm). The Department may retain not less than \$2,100,000 from moneys due or that may become due the Contractor under the contract, until an approved repair or reconstruction is complete."

In the Special Provisions, Section 5-1.31, "ENVIRONMENTALLY SENSITIVE AREAS (GENERAL)," subsection "PAYMENT" is revised as follows:

"PAYMENT

Full compensation for checking, repairing or replacing the ESA markings and for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various contract items of work and no separate payment will be made therefor."

In the Special Provisions, Section 10-1.14, "WORKING DRAWING CAMPUS," the following sentence is added to the end of the second paragraph:

"The working drawing campus shall be available for the duration of the contract, or until no longer required as approved by the Engineer."

In the Special Provisions, Section 10-1.15, "ACCELERATED WORKING DRAWINGS SUBMITTAL," is revised as attached.

In the Special Provisions, Section 10-1.27, "PHOTO SURVEY OF EXISTING FACILITIES," is revised as attached.

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In the Special Provisions, Section 10-1.36, "TEMPORARY TOWERS," subsection "SCHEDULE OF VALUES" is revised as follows:

"SCHEDULE OF VALUES

Attention is directed to "Accelerated Working Drawings Submittal" in these special provisions.

The Contractor shall submit, for approval by the Engineer, a schedule of values detailing the cost breakdown of the contract lump sum item for furnish and remove temporary towers. The schedule of values shall reflect the items, work, quantities and costs required to furnish, erect, and remove temporary towers, except for costs required to prepare working drawings as included in the contract lump sum price paid for "Accelerated Working Drawings Submittal". The Contractor shall be responsible for the accuracy of the quantities and cost used in the schedule of values.

The sum of the costs for the items of work listed in the schedule of values shall equal the contract lump sum price for furnish and remove temporary towers.

No adjustment in compensation will be made in the contract lump sum price paid for furnish and remove temporary towers due to differences between the quantities shown in the schedule of values furnished by the Contractor and the quantities required to complete the work as shown on the plans and specified in these special provisions.

The schedule of values shall be submitted to the Engineer within the time required for submittal of the Interim Baseline Schedule, as specified in "Progress Schedule (Critical Path)," of these special provisions. When approved in writing by the Engineer, the schedule of values will be used to determine progress payments for furnish and remove temporary towers during the progress of the work. No progress payment for furnish and remove temporary towers will be made until the schedule of values is approved in writing by the Engineer.

The schedule of values shall categorize the work by tower location and shall quantify the values into the following progress payment milestones:

- A. Furnish temporary tower material
- B. Erect temporary tower
- C. Remove temporary tower

The Contractor may propose additional milestones for progress payment subject to approval by the Engineer."

In the Special Provisions, Section 10-1.36, "TEMPORARY TOWERS," subsection "PAYMENTS," the following paragraph is added after the second paragraph:

"Costs for preparing working drawings in excess of amounts allocated in "Accelerated Working Drawings Submittal" item shall be considered as included in contract prices paid for the various items of work and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.38, "HIGH STRENGTH PRESTRESSING ROD (75 MM)," subsection "HIGH STRENGTH PRESTRESSING ROD MANUFACTURER," the following paragraph is added after the seventh paragraph:

"The Contractor shall notify the Engineer and Macalloy Limited at least 30 days prior to the date on which a Macalloy representative is required to be present at the job site."

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In the Special Provisions, Section 10-1.41, "SPHERICAL BUSHING BEARING (PIER E2)," subsection "WORKING DRAWINGS," the sixth paragraph is revised as follows:

"After complete working drawings and supplement are received by the Engineer, the Contractor shall allow the Engineer 40 working days to review the submittal."

In the Special Provisions, Section 10-1.42, "FURNISH SPHERICAL BUSHING RING BEARING (HINGE K)," subsection "WORKING DRAWINGS," the sixth paragraph is revised as follows:

"After complete working drawings and supplement are received by the Engineer, the Contractor shall allow the Engineer 40 working days to review the submittal."

In the Special Provisions, Section 10-1.43, "TOWER CROSS BRACING SPHERICAL BUSHING BEARING," subsection "WORKING DRAWINGS," the sixth paragraph is revised as follows:

"After complete working drawings and supplement are received by the Engineer, the Contractor shall allow the Engineer 40 working days to review the submittal."

In the Special Provisions, Section 10-1.44, "SHEAR KEY (PIER E2)," subsection "WORKING DRAWINGS," the sixth paragraph is revised as follows:

"After complete working drawings and supplement are received by the Engineer, the Contractor shall allow the Engineer 40 working days to review the submittal."

In the Special Provisions, Section 10-1.441, "LUBRICANT AND TEST," subsection "WORKING DRAWINGS," the fourth paragraph is revised as follows:

"Complete working drawings and supplement shall be submitted to the Engineer within one year after the contract is awarded. After complete working drawings and supplement are received by the Engineer, the Contractor shall allow the Engineer 40 working days to review the submittal. No fabrication of test specimen and test fixtures shall begin until complete working drawings and supplement are reviewed and approved, in writing, by the Engineer."

In the Special Provisions, Section 10-1.441, "LUBRICANT AND TEST," subsection "WORKING DRAWINGS," the sixth paragraph is revised as follows:

"The Contractor shall allow the Engineer 30 working days to review each of the certified test reports for the tests. Lubricant shall not be used until the Engineer has approved all certified test reports."

In the Special Provisions, Section 10-1.51, "STEEL STRUCTURES", subsection "WORKING DRAWINGS," the first paragraph is revised as follows:

"Attention is directed to "Working Drawings," and "Accelerated Working Drawing Submittals" in these special provisions."

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In the Special Provisions, Section 10-1.51, "STEEL STRUCTURES," subsection "MEASUREMENT AND PAYMENT," the following paragraph is added after the third paragraph:.

"Costs for preparing working drawings in excess of amounts allocated in "Accelerated Working Drawings Submittal" item shall be considered as included in contract prices paid for the various items of work and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.52, "CABLE SYSTEM," subsection "GENERAL," subsection "Working Drawings," the first paragraph is revised as follows:

"The Contractor shall submit working drawings for the construction of the cable system to the Engineer for approval in conformance with the provisions in "Working Drawings" and "Accelerated Working Drawing Submittals" of these special provisions."

In the Special Provisions, Section 10-1.52, "CABLE SYSTEM," subsection "MATERIALS AND FABRICATION," subsection "Cable Band Friction Testing," the following paragraph is added after the third paragraph:

"Interior surfaces of the cable bands shall be clean and free of any rust, lubricants, and moisture. The surface of the mock cable under the cable band shall be cleaned in accordance with the provisions of Surface Preparation Specification No. 1, "Solvent Cleaning," of the SSPC: The Society for Protective Coatings. Solvent cleaning shall be supplemented by hand tool cleaning in accordance with the provisions of Surface Preparation Specification No. 2, "Wire Brushing, and Hand Washing, and Rinsing," of the SSPC: The Society for Protective Coatings to remove any non-adherent shop applied coating, or detrimental foreign matter unable to be removed by solvent cleaning. Brass wire brushes shall be used for this surface preparation. Steel wire brushes will not be permitted."

In the Special Provisions, Section 10-1.52, "CABLE SYSTEM," subsection "ERECTION," subsection "Cable Bands," the following paragraph is added after the first paragraph:

"Interior surfaces of cable bands shall be clean and free of any rust, lubricants, and moisture. The surface of the cable under cable bands shall be cleaned using the same procedures used for the approved cable band friction testing."

In the Special Provisions, Section 10-1.52, "CABLE SYSTEM," subsection "MEASUREMENT," is revised to read "MEASUREMENT AND PAYMENT."

In the Special Provisions, Section 10-1.52, "CABLE SYSTEM," subsection "MEASUREMENT AND PAYMENT," the following paragraph is added after the fourth paragraph:

"Costs for preparing working drawings in excess of amounts allocated in "Accelerated Working Drawings Submittal" item shall be considered as included in contract prices paid for the various items of work and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.69, "MISCELLANEOUS METAL (CABLE TRAY SUPPORT)" is deleted.

In the Proposal and Contract, the Engineer's Estimate Alternative 1 and Alternative 2, Item 100 is deleted as attached.

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To Proposal and Contract book holders:

Replace pages 32 and 40 of the Engineer's Estimate in the Proposal with the attached revised pages 32 and 40 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY:

REBECCA D. HARNAGEL, Chief Office of Plans, Specifications & Estimates Office Engineer

Attachments

5-1.16 INTEGRATED SHOP DRAWINGS

Attention is directed to "Working Drawings" in these special provisions.

Difficult construction is anticipated at the Pier W2 cap beam and Pier E2 cross beam that are highly congested with reinforcing steel, high strength rods, post-tensioning strand tendons, cable tie-down pipe sleeves, anchor bolts, and other concrete embedded items as shown on the plans. It is anticipated that various conflicts will be encountered between embedded items within the concrete. The Contractor shall develop three-dimensional integrated shop drawings (ISD) for the Pier W2 cap beam and Pier E2 cross beam in accordance with the details shown on the plans and the requirements of this section. The ISD shall be of sufficient detail to demonstrate compatibility of the embedded items within the concrete.

Prior to commencing work on the ISD, the Contractor (including any sub-consultants hired to work on the ISD) shall attend a meeting with the Engineer to discuss the ISD work.

The Contractor shall utilize commercially available software that checks for interference in three dimensions. Prior to acquiring the software, the Contractor shall submit to the Engineer the product name and application features of the software for review and approval. The software shall be compatible with the computer-aided drafting (CAD) software used to develop the ISD. Bar reinforcement shall be shown with deformed diameters. The Contractor shall develop CAD files using different layers for each type of embedded item such that the sequence of construction of the member or area being detailed can be shown.

Attention is directed to "Working Drawing Campus" in these special provisions for other equipment and software requirements.

Embedded items that are to be shown on the ISD shall include, but are not limited to, the following:

- A. Prestressing ducts, anchorages, and blockouts
- B. Bar reinforcing steel and splices including lap, welded, and mechanical splices
- C. Anchor bolts
- D. Anchor bolt plates
- E. Anchorage reinforcement and hardware
- F. Grout vents
- G. High strength rods
- H. Cable tie-down pipe sleeves
- I. Seismic joint blockout
- J. Drainage pipe
- K. Utility conduits and openings
- L. Inserts, bolt sleeves and studs
- M. Other items, as shown on the plans

The Contractor shall use the ISD to identify and propose resolution of all conflicts and interference between the planned positions of embedded items and to satisfy the concrete cover shown on the plans.

If a conflict is identified, the Contractor shall document the conflict and propose any changes that are needed to the embedded items in the ISD's to resolve the conflict. Proposed changes to the embedded items shall be made by a licensed Engineer practicing Civil Engineering with extensive previous experience developing ISD.

The Contractor's proposed changes in the ISD shall comply with the following sequence of item adjustments:

A. Pier W2 Cap Beam:

- 1. Non structural embedded items
- 2. Bar reinforcing steel
- 3. Vertical prestressing ducts
- 4. Transverse prestressing ducts
- 5. Continuity prestressing ducts
- 6. High strength anchor rods
- 7. Cable tie-down cable pipe sleeves

B. Pier E2 Cross Beam:

- 1. Nonstructural embedded items
- 2. Bar reinforcing steel

- 3. Prestressing ducts
- 4. Shear key anchor bolts
- 5. Bearing anchor bolts

The Contractor shall use the following measures in the order prescribed to resolve interference issues during the preparation of the ISD:

- A. Adjust reinforcement spacing.
- B. Bundle bars.
- C. Relocate splices.
- D. Change reinforcement size and number. Reduction of the total reinforcement area will not be permitted, unless otherwise approved by the Engineer.
- E. Change reinforcement shape.
- F. Move embedded inserts.

Attention is directed to "Working Drawing Campus" in these special provisions. The Working Drawing Campus shall be used to facilitate resolution of the ISD.

The ISD to be submitted to the Engineer shall include the following:

- A. Three sets of the ISD corresponding to the details as shown on the plans without any modifications. These ISD shall indicate all conflicts including locations of the conflicts and items involved in the conflicts.
- B. Three complete lists of conflicts with descriptions and the Contractor's proposed modifications for each conflict.
- C. Three sets of the ISD corresponding to the details as shown on the plans with incorporation of the Contractor's proposed modifications. These ISD shall indicate that all previous identified conflicts have been resolved and concrete cover requirements as shown on the plans are met.
- D. ISD shall be 559 mm x 864 mm in size and shall use colored ink to differentiate each type of embedded items. For each portion of the structure, ISD shall include a minimum of six isometric views. Any two isometric views shall be 90 degrees apart.
- E. Three copies of the ISD in CAD file format on compact discs or tape for use by the Engineer.

An ISD submittal that complies with all of the above requirements, in the opinion of the Engineer, will be defined as a complete ISD submittal. Submittal of isometric drawings made from ISD shall in no way relieve the Contractor from any other working drawing submittal required by these special provisions or the Standard Specifications.

CAD files of the contract drawings will not be made available to the Contractor.

After an ISD submittal is received by the Engineer, the Contractor shall allow the Engineer 7 days to review the ISD submittal for completeness. If determined to be complete, the Engineer shall have 28 working days from the day of receipt to review and approve the ISD submittal. For proposed modifications that are not approved by the Engineer, the Engineer will propose alternative modifications to the Contractor. Modifications that result in changes to the plans or specifications, as determined by the Engineer, will be made in accordance with Section 4-1.03 "Changes" of the Standard Specifications. The Contractor shall submit revised ISD incorporating the Engineer's alternative modifications as specified in this section. If more than one ISD is submitted at one time, the time to be allowed for the review of the ISD shall not be less than the review time specified above plus 14 days for each ISD submittal still under review and the Contractor shall designate the sequence in which the submittals are to be reviewed.

Assembly of the mockup represented by the ISD and construction of the Pier W2 Cap Beam and Pier E2 Cross Beam shall not begin until the Engineer has approved the complete ISD submittal with all conflicts resolved.

No extension of time will be permitted for the Contractor's failure to identify all conflicts or to complete the ISD as required by these special provisions.

Full compensation for preparing ISD, including all revisions necessary due to conflict resolution measures taken by the Contractor, shall be considered as included in the contract prices paid for the various items of work and no additional compensation will be allowed therefor.

10-1.15 ACCELERATED WORKING DRAWINGS SUBMITTAL

The contractor shall accelerate the following working drawing submittals from the shop plan preparation staff to the Engineer to facilitate early resolution of construction working drawing issues and keep these submittals off the critical path of the project.

Submittal	Special provisions sections			
	1 1			
Working drawings required for the W2 cap	"INTEGRATED SHOP DRAWINGS"			
beam				
Working drawings and design calculations	"Working Drawings" in "TEMPORARY TOWERS"			
for all temporary towers				
Working drawings required for the	"Working Drawings" in "STEEL STRUCTURES"			
fabrication of box girder structural steel				
Working drawings required for the	"Working Drawings" in "STEEL STRUCTURES"			
fabrication of all tower structural steel				
Working drawings and supplemental	"Erection Plan" in "STEEL STRUCTURES"			
calculations for the erection of tower and				
superstructure structural steel				
Working drawings for castings	"Castings" in "STEEL STRUCTURES"			
Written, detailed procedures for the	"Fabrication/Erection Procedure and Mock-Ups" in			
fabrication and erection of the complex	"STEEL STRUCTURES"			
assemblies listed under "Fabrication/Erection				
Procedure and Mock-Ups"				
Working drawings for the construction of	"Working Drawings" in "CABLE SYSTEM"			
the cable system				

The Contractor shall receive approval from the Engineer for his working drawing submittal schedule, preliminary erection plan, and weight control procedure prior to preparing working drawings for the fabrication of the box girder structural steel, tower structural steel, and the cable system.

The Contractor shall submit, for approval by the Engineer, a schedule of costs detailing the breakdown of the contract lump sum item. The schedule of costs shall be proportionate to the work involved and shall detail the costs and payment schedule for each cost item associated with the process entailed in obtaining approval on all approved working drawing as specified herein. When requested by the Engineer, the Contractor shall furnish any cost data, which might assist the Engineer in verifying one-time partial payments and establishing a suitable schedule of costs. The schedule of costs will be used to determine progress payments for "Accelerated Working Drawings Submittal" during the progress of the work. The schedule of costs shall be submitted to the Engineer for approval with the working drawing submittal schedule as specified in "Working Drawing Submittal Schedule" of these special provisions.

Attention is directed to "Payments," "Temporary Towers," "Steel Structures," and "Cable System," of these special provisions.

The contract lump sum price paid for Accelerated Working Drawings Submittal shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in facilitating early resolution of construction working drawings and preparing all the above specified working drawings, in conformance with the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Payment will be made in accordance with "Payments," of these special provisions. Payments will not be made for partial submittals, although partial submittals may be accepted, as determined by the Engineer. For a submittal to be considered complete, all items listed under the individual submittal requirements shall be completed, and all facets of the operation/element fully developed. Payment will be made in the estimate following approval of each submittal set of the working drawings. Submittals other than those listed herein will not receive separate payments, and shall be considered as included in the various contract items involved.

10-1.27 PHOTO SURVEY OF EXISTING FACILITIES

Attention is directed to "Environmentally Sensitive Areas (General)" elsewhere in these special provisions, regarding protection of Building No. 262.

The Contractor shall perform two photo surveys, pre-construction and post-construction, of Building No. 262.

The Contractor shall perform the pre-construction photo survey 7 days prior to any field work in the vicinity of Building No.262, on Yerba Buena Island. Photo surveys shall be conducted in conformance with the requirements in these special provisions. The scope of the examination shall include both internal and external cracks in structures, settlement, and leakage. Crack monitoring shall be performed on all existing cracks with initial crack-gauge installation as part of the photo survey project, as directed by the Engineer. Such monitoring shall include recording gauge readings twice a week, or as determined by the Engineer. A report detailing such readings shall be provided to the Engineer.

The post-construction photo survey shall be completed after removal of temporary towers and falsework.

The Contractor shall submit to the Engineer for approval a complete description of the work to be completed for each surveyed location. The work to be completed shall consist of records of observations, and photographs.

The photograph prints shall be 12.7 cm x 17.8 cm. All negatives shall be provided. All photos shall be identified by date, location, orientation, and labeled with a detailed description. All photos shall be submitted in a 3-ring binder and shall include protective photo sleeves, building layout (including layout of each floor as necessary), and a summary sheet indexing all photos.

Digital photos may be submitted in lieu of print film photographs described above. All other requirements as referenced above shall also apply. In addition, requirements for digital photos are as follows:

- Photos shall have a minimum resolution of 1280 x 960 pixels with no compression.
- Digital prints shall be on a Disublimation Printer (a magazine quality printer capable of color fusion and continuous tone) or a laser printer utilizing photo quality paper.
- All digital photos shall be stored with TIFF File formats on a CD ROM and provided to the Engineer.

The Contractor shall provide the Engineer with 6 copies of approved photo survey records.

The above records and photographs are intended for use as indisputable evidence in ascertaining the extent of damage which may occur as a result of the Contractor's operations and are for the protection of the listed property owners, the Contractor, and the State.

PAYMENT

The contract lump sum price paid for photo survey of existing facilities, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in conducting photo surveys as specified in these special provisions, and as directed by the Engineer, complete in place, including crack monitoring, and furnishing 6 sets of the approved photo survey records, as specified in these special provisions, and as directed by the Engineer.

Additional photo surveys of existing facilities other than Building No. 262 will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications.

ENGINEER'S ESTIMATE

04-0120F4

Alternative 1

Item	Item	Item	Unit of	Estimated	Unit Price	Item Total
item	Code	nem	Measure	Quantity	Unit Price	item Total
81 (F)	049325	ERECT STRUCTURAL STEEL (BRIDGE) (PIPE BEAM)	KG	260 000		
82 (F)	049326	INSTALL STRUCTURAL STEEL (BRIDGE) (PIPE BEAM)(HINGE A)	EA	4		
83	049327	FURNISH STRUCTURAL STEEL (BRIDGE) (PIPE BEAM FUSE)	EA	4		
84 (S-F)	049328	FURNISH PWS CABLE SYSTEM	KG	4 800 000		
85 (S-F)	049329	ERECT PWS CABLE SYSTEM	KG	4 800 000		
86 (S-F)	049330	FURNISH SUSPENDER SYSTEM	KG	650 000		
87 (S-F)	049331	ERECT SUSPENDER SYSTEM	KG	650 000		
88 (S)	049332	TOWER SUSPENDER ASSEMBLIES	LS	LUMP SUM	LUMP SUM	
89	030712	SERVICE PLATFORM	EA	5		
90	560218	FURNISH SIGN STRUCTURE (TRUSS)	KG	9200		
91	560219	INSTALL SIGN STRUCTURE (TRUSS)	KG	9200		
92	562002	METAL (BARRIER MOUNTED SIGN)	KG	1020		
93 (S-F)	049333	PLASTIC LUMBER	M3	99		
94 (S-F)	049334	UHMW POLYETHYLENE PANEL (50 MM)	M2	637		
95 (S)	590115	CLEAN AND PAINT STRUCTURAL STEEL	LS	LUMP SUM	LUMP SUM	
96 (S)	049335	CLEAN AND PAINT STRUCTURAL STEEL (TOWER)	LS	LUMP SUM	LUMP SUM	
97 (S)	049336	CLEAN AND PAINT STRUCTURAL STEEL (BOX GIRDER)	LS	LUMP SUM	LUMP SUM	
98 (S)	049337	CLEAN AND PAINT STRUCTURAL STEEL (BIKEPATH)	LS	LUMP SUM	LUMP SUM	
99 (S)	049338	CLEAN AND PAINT CABLE SYSTEM	LS	LUMP SUM	LUMP SUM	
100	BLANK					
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ENGINEER'S ESTIMATE

04-0120F4 ALTERNATIVE 2

				1 L		
Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81 (F)	049325	ERECT STRUCTURAL STEEL (BRIDGE) (PIPE BEAM)	KG	260 000		
82 (F)	049326	INSTALL STRUCTURAL STEEL (BRIDGE) (PIPE BEAM)(HINGE A)	EA	4		
83	049327	FURNISH STRUCTURAL STEEL (BRIDGE) (PIPE BEAM FUSE)	EA	4		
84 (S-F)	049328	FURNISH PWS CABLE SYSTEM	KG	4 800 000		
85 (S-F)	049329	ERECT PWS CABLE SYSTEM	KG	4 800 000		
86 (S-F)	049330	FURNISH SUSPENDER SYSTEM	KG	650 000		
87 (S-F)	049331	ERECT SUSPENDER SYSTEM	KG	650 000		
88 (S)	049332	TOWER SUSPENDER ASSEMBLIES	LS	LUMP SUM	LUMP SUM	
89	030712	SERVICE PLATFORM	EA	5		
90	560218	FURNISH SIGN STRUCTURE (TRUSS)	KG	9200		
91	560219	INSTALL SIGN STRUCTURE (TRUSS)	KG	9200		
92	562002	METAL (BARRIER MOUNTED SIGN)	KG	1020		
93 (S-F)	049333	PLASTIC LUMBER	M3	99		
94 (S-F)	049334	UHMW POLYETHYLENE PANEL (50 MM)	M2	637		
95 (S)	590115	CLEAN AND PAINT STRUCTURAL STEEL	LS	LUMP SUM	LUMP SUM	
96 (S)	049335	CLEAN AND PAINT STRUCTURAL STEEL (TOWER)	LS	LUMP SUM	LUMP SUM	
97 (S)	049336	CLEAN AND PAINT STRUCTURAL STEEL (BOX GIRDER)	LS	LUMP SUM	LUMP SUM	
98 (S)	049337	CLEAN AND PAINT STRUCTURAL STEEL (BIKEPATH)	LS	LUMP SUM	LUMP SUM	
99 (S)	049338	CLEAN AND PAINT CABLE SYSTEM	LS	LUMP SUM	LUMP SUM	
100	BLANK					